Message

From: Thurmon, Clarke [Thurmon.Clarke@epa.gov]
Sent: 1/29/2020 7:33:39 PM
To: Kenknight, Jeff [Kenknight.Jeff@epa.gov]; Winiecki, Eric [Winiecki.Eric@epa.gov]; Contreras, Peter [Contreras.Peter@epa.gov]; Baron, Adam [Baron.Adam@epa.gov]; Martinson, Mathew [martinson.mathew@epa.gov]
CC: Steiner-Riley, Cara [Steiner-Riley.Cara@epa.gov]
Subject: RE: Private Well Information

Hello all.

I am adding Cara to the email thread for this issue.

Thanks,
Clarke

Clarke Thurmon
Assistant Regional Counsel
U.S. Environmental Protection Agency
Region 10, Office of Regional Counsel
1200 Sixth Avenue, Suite 155
M/S ORC-11-C07
Seattle, WA 98101
Desk (206) 553-2585
Fax (206) 553-1762
Thurmon.Clarke@EPA.gov

From: Kenknight, Jeff <Kenknight.Jeff@epa.gov>
Sent: Wednesday, January 29, 2020 10:48 AM
To: Winiecki, Eric <Winiecki.Eric@epa.gov>; Contreras, Peter <Contreras.Peter@epa.gov>; Baron, Adam <Baron.Adam@epa.gov>; Thurmon, Clarke <Thurmon.Clarke@epa.gov>; Martinson, Mathew <martinson.mathew@epa.gov>
Subject: RE: Private Well Information

Thanks Eric.

Just adding Mat to the string.

Jeff KenKnight
Chief, Water Enforcement and Field Branch
Enforcement and Compliance Assurance Division

EPA Region 10
1200 Sixth Avenue, Suite 155, 20-C04
Seattle, WA 98101
(206) 553-6641

From: Winiecki, Eric <Winiecki.Eric@epa.gov>
Sent: Wednesday, January 29, 2020 10:37 AM
To: Contreras, Peter <Contreras.Peter@epa.gov>; Kenknight, Jeff <Kenknight.Jeff@epa.gov>; Baron, Adam <Baron.Adam@epa.gov>; Thurmon, Clarke <Thurmon.Clarke@epa.gov>
Subject: Private Well Information

- This map is from the petition… the petitioners estimate that "likely 30 to 40% of all private wells" in the GWMA exceed the nitrate MCL. If correct, in my experience this is toward the higher end of percentage of wells in agricultural areas where nitrate contamination is a problem (in the Lower Yakima Valley GWMA, for example, it's closer to 20%). I looked through the GWMA website but couldn't find a similar GWMA estimate of the percentage of wells that exceed the MCL… it might be there somewhere though.

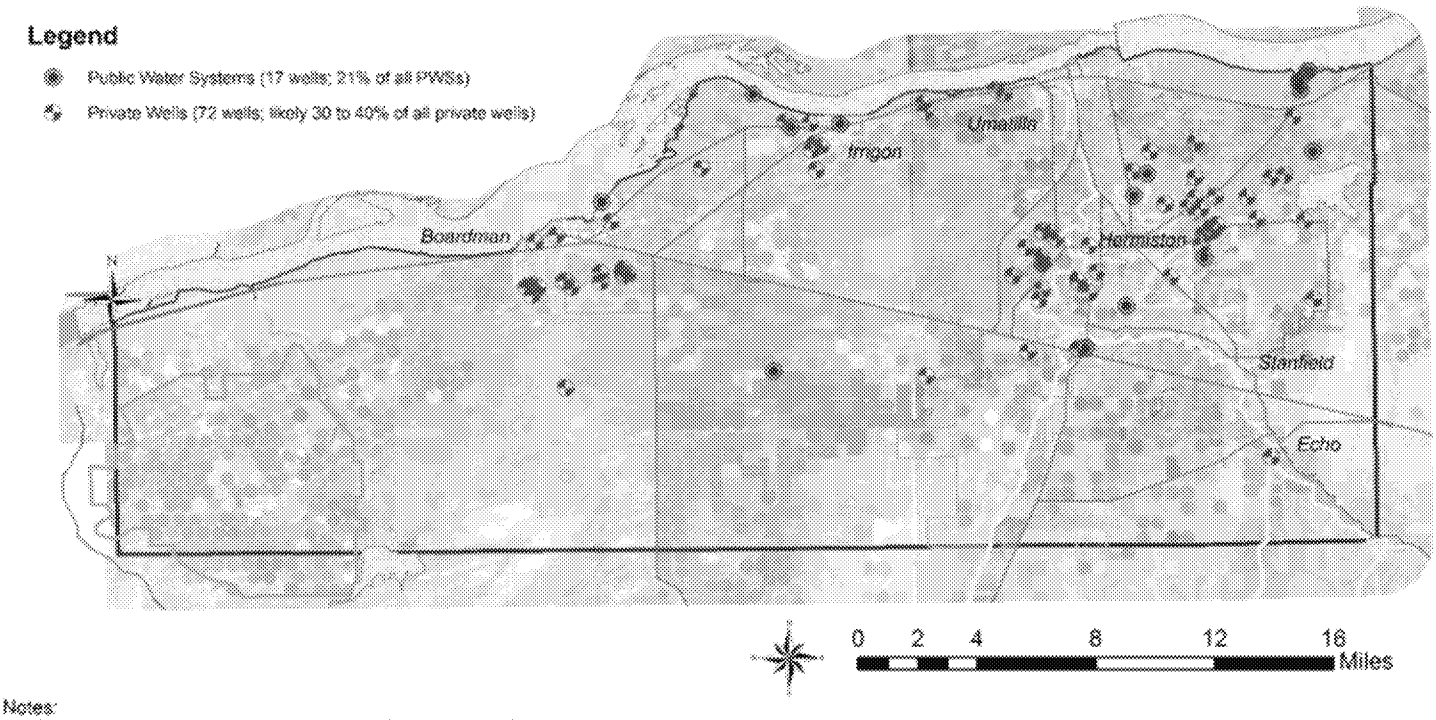
- Below the map is a GWMA summary of historical nitrate trends.

- My quick review of materials on the GWMA website suggests that the GWMA may think that the main nitrate source is irrigated agriculture in general but not necessarily related to CAFOs, whereas the petitioners view CAFOs a major unaddressed source.

- Nick Peak says the permit for the 30k-cow dairy has not yet been issued. He is going to ask ODA about the timing.

Fig. 3, Drinking Water Sources with Documented Nitrate Exceedances[64]

Public and Private Drinking Water Wells that Have Exceeded the Nitrate Drinking Water Standard
Lower Umatilla Basin Groundwater Management Area



Notes:
Public wells include both active and inactive Public Water Systems monitored by Oregon Health Authority. Of the 181 PWSs in Umatilla and Morrow County, 18 (10%) have exceeded the nitrate drinking water standard at least once. 17 of these wells (94%) are within the LUBGWMA. Of the 81 PWSs in the LUBGWMA, 17 (21%) have exceeded the standard at least once. These percentages do not take into account which aquifer these wells tap. Because some PWS wells are likely completed in the basalt aquifer, the percentage of PWS wells with high nitrate that utilize only the alluvial aquifer is likely higher than 21%.

Private wells on this map include 50 wells from the Real Estate Transaction database, 14 wells from the regular LUBGWMA Network wells, 7 domestic wells that were included in the 2009 Synoptic Sampling Event, and the Navy Bombing Range well. Approximately 10% of the RET results show nitrate values over the standard. Because the RET database is known to contain results from treated samples and basalt wells, it is likely not a good indicator of the magnitude or extent of nitrate contamination. Approximately 42% of the domestic wells in the LUBGWMA network show nitrate values over the standard. Approximately 30% of the domestic wells sampled during the 2009 Synoptic Sampling Event showed nitrate values over the standard.

Summary of Nitrate Trend Analyses
Lower Umatilla Basin Groundwater Management Area

Type of Analysis	Data Used	Time frame	Increasing	Decreasing	Flat	Statistically Insignificant	Comment
Seasonal Kendall Trends at Individual wells	113 Food processor MWs	Time of well installation through December 2001	72 (64%)	8 (7%)	3 (3%)	30 (27%)	Most sites and most wells show increasing nitrate trends
Seasonal Kendall Area-Wide Trend	38 Bi-monthly network wells	1998 through 2004					Statistically insignificant flat trend
Comparison of 1992 and 2003 Synoptic Sampling Events	118 wells with detectable nitrate during	1992 to 2003	78 (66%)	40 (34%)			Most wells show increasing nitrate trends

	both events						
Comparison of 1992 and 2003 Synoptic Sampling Events	90 wells with a RPD >10% & actual difference of > 0.5 mg/l	1992 to 2003	65 (72%)	25 (28%)			Most wells show increasing nitrate trends
Seasonal Kendall Trends at Individual wells	34 wells with detectable nitrate during both synoptic samping events	1992 through 2003	19 (56%)	9 (26%)		6 (18%)	Most wells show increasing nitrate trends
Seasonal Kendall Trends at Individual wells	133 Food processor MWs	Time of well installation through December 2005	74 (58%)	25 (20%)	0 (0%)	28 (22%)	Most sites and most wells show increasing nitrate trends
Seasonal Kendall Area-Wide Trend	38 Bi-monthly network wells	1998 through 2006					Statistically insignificant flat trend